

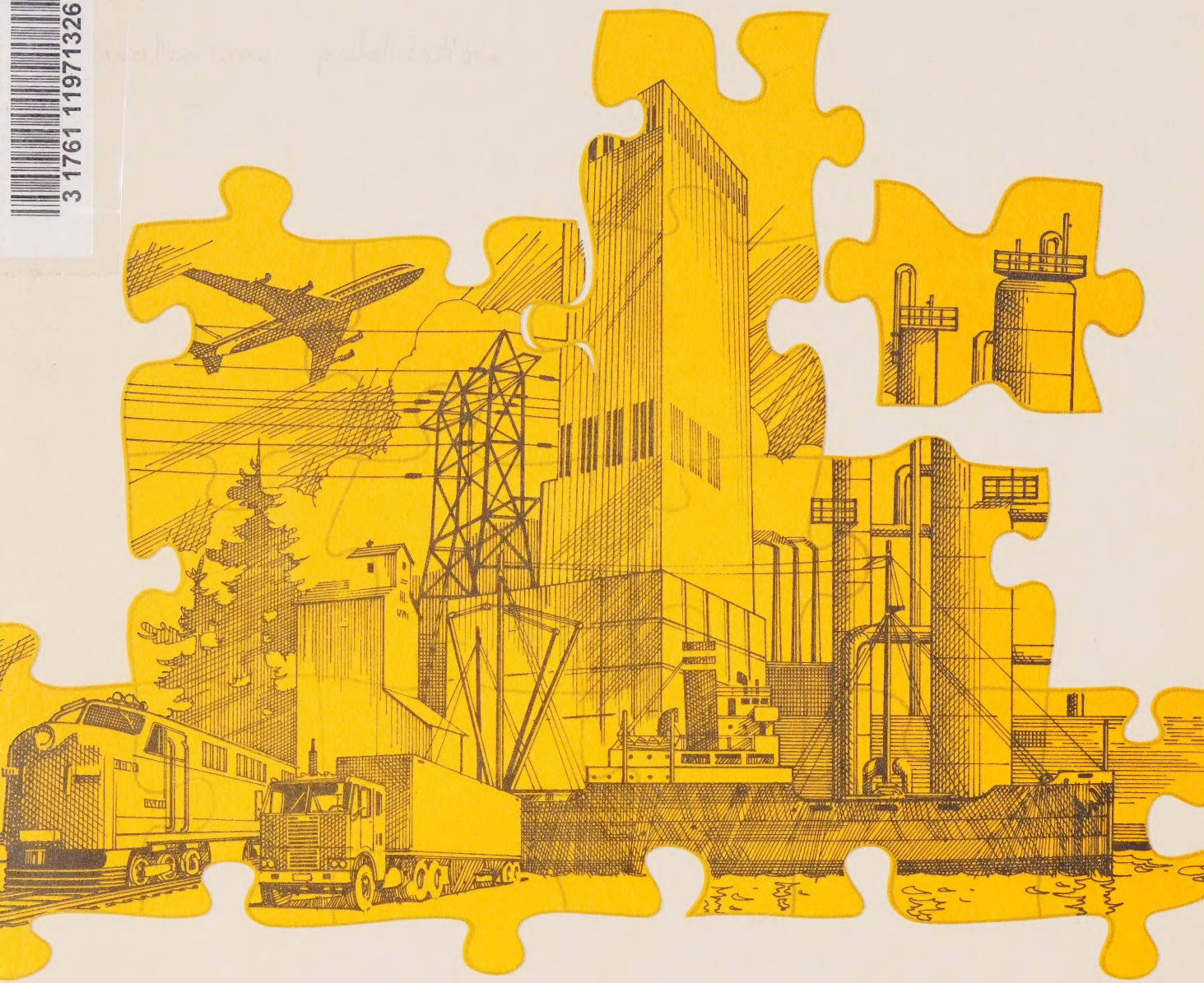
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STUDY NO. 27

Organization Size and Alienation A Background Report

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Organization Size and Alienation

A Background Report

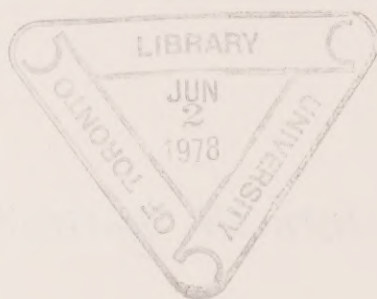
by

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1976



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FOREWORD

In April 1975, the Royal Commission on Corporate Concentration was appointed to "inquire into, report upon, and make recommendations concerning:

- (a) the nature and role of major concentrations of corporate power in Canada;
- (b) the economic and social implications for the public interest of such concentrations; and
- (c) whether safeguards exist or may be required to protect the public interest in the presence of such concentrations."

To gather informed opinion, the Commission invited briefs from interested persons and organizations and held hearings across Canada beginning in November 1975. In addition, the Commission organized a number of research projects relevant to its inquiry.

This research study on the relationship between organization size and alienation was prepared as a discussion paper for the Commission by Professor John W. Gartrell of the Department of Sociology, University of Alberta. Professor Gartrell reviews a number of research findings from sociology and social psychology, and compares survey results from two large cross-sectional studies, one Canadian and one carried out in the United States.

The Commission is publishing this and other background studies in the public interest. We emphasize, however, that the analyses presented and conclusions reached are those of the author, and do not necessarily reflect the views of the Commission or its staff.

Donald N. Thompson
Director of Research

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ORGANIZATION SIZE AND ALIENATION

Introduction

One of the prevailing elements of our folklore is the notion that big bureaucratic organizations are bad. This legacy of conservative romantic idealism seeks a return to small, intimate social organizations and emphasizes the primary group relationships that characterized what was essentially a rural life style. While only a few people would go so far as to join a commune, there are many who complain about big government or big business. Nobody likes the depersonalization that is often experienced in dealing with large organizations (Katz and Kahn, 1966:463).

Although relationships with organizations permeate our social life, organizational size probably has its most persistent long term effects through employment. Indeed, one of the dramatic social changes brought by industrialism has been the shift from self-employment to employment in large-scale bureaucracies. Industrial technology has increased production and created some measure of security --the risks faced in earning a living have lessened --yet the complexity generated by that technology has led to a perceived lack of individual control because the organization manages the employee's environment. The complexity of social interaction inherent in large organizations and the loss of control that their hierarchical structures imply is thus a two-edged sword. Large organizations, necessary to the mass-production that gives us our high standard of living and material well-being, create what Marx called alienation and Durkheim called anomie. We are all expected to succeed on our own merits through our own efforts and yet at the same time, our behaviour is influenced by forces perceived to be beyond our control.

These kinds of contradictions have often been linked to job dissatisfaction, lack of commitment to work or to employers, lateness, inattentiveness, counter-productive behaviour, and turnover. The very technology that increases production also entails a form of social organization that may create labour problems.

Problems in Assessing the Impact of Size

Unfortunately, while the size of organizations (usually defined in terms of the number of employees) has recently received a good deal of attention in attempts to explain organizational structure (Meyer, 1972; Blau, 1974; Scott, 1975), its impact on individual attitudes or behaviour has been relatively neglected. On the other hand, hundreds of studies of individual morale, job satisfaction and alienation have focused on some combination of attributes of individuals (from personality to social status) and job characteristics (Vroom, 1964; Robinson et al, 1969; Kahn, 1972), rather than on the influence of the structural characteristics of the organization involved.¹

While some research has pointed to a positive relationship between organization size and alienation, Meltzer and Salter in their study of physiological scientists (1962) reported that job satisfaction was greatest in medium-sized (21-50 employees) organizations. This suggests a curvilinear relationship between size and alienation, although as these authors admit, variables other than size may be more important in accounting for differences in individual reactions to organization situations.²

Indeed, any attempt to investigate the effects of organization size on individual alienation is complicated by the potentially complex nature of the linkages involved. The impact of size on the individual employee is probably mediated by organizational structure. For example, Robert Kahn et al (1964) found that stress was a function of organization size and reasoned that stress was created in large organizations by their greater demands for coordination. Stress increased for those in organizations of 50 through 100 people and continued to rise until organizations of more than 5,000 employees were encountered. There the curve levelled out. Kahn and his associates suggested that increased decentralization with greater subunit autonomy might minimize the negative effects of size.³ Some confirmation for this notion is reported in one of the few studies of organizations that has dealt with alienation. Aiken and Hage (1966) found a strong negative association between the degree of decentralization and the degree of job satisfaction in 16 welfare organizations in Milwaukee.

In fact, individual alienation might also be seen as a function of many different dimensions of organizational structure. It might be exacerbated not only by greater complexity or inequality in the distribution of power, economic rewards, or prestige, but also by problems of communication, increased rates of conflict, deviance and coercion. Indeed, individual alienation could be seen as a function of the organization's very success in managing its own human and material resources.

Presthus (1965:30-1) began from the observation that morale decreased as size increased, citing empirical research by Worthy (1950), Marriott (1949) and Hewitt and Parfit (1953). He also argued that

While the relationship is less consistent, lower productivity and absenteeism are also associated with organizational size. This is apparently because men find it difficult to identify with the large number of people found in the typical big organization. While small-group membership eases this problem, it does not necessarily improve the individual's rapport with the organization qua organization. Individuals tend to feel unimportant and somewhat alienated by its size, anonymity and power. They do not seem to count. The pecuniary nexus between the organization and the individual may contribute to this self-perception. In mass-production industry, the highly rationalized work process encourages alienation by reducing the skill demands of the job.

Similarly, Davis (1972:228) points to the "behemoth syndrome" in outlining the negative effects of size, and argues that large size lowers employee satisfaction, which in turn increases absenteeism. Because of the functional interdependence of different jobs, absenteeism increases coordination problems which increase job frustration and reduce morale and productivity. This produces new problems, more rules and additional work pressures which produce further degeneration. However, many of the links in this chain of reasoning are unsupported by systematic empirical evidence.

These same arguments lead Eisele (1974) to hypothesize that as organization size increases, the frequency of strikes increases. Examining data from 282 plants (all with at least one-half of the employees unionized) he found that increases in size at the lower end of the scale (between 10 to 600 or 700 employees) resulted in a higher frequency of strikes over the last 25 years for all three types of technologies identified. However, this represented the peak in strike frequency with the curve first descending over intermediate size categories (up to around 900 employees) and then climbing slowly or remaining constant across the remainder of the size range.

As was the case with job satisfaction and stress, there was a curvilinear relationship involved, but the results seem rather contradictory. Stress was found to increase more slowly as size increased (Kahn et al, 1964), strikes were more frequent in the middle size range (Eisele, 1974), but job satisfaction was highest in medium sized organizations (Meltzer and Salter, 1962) or in the largest organizations (Presthus, 1965). The state of the evidence is not nearly so clear as some authors would seem to suggest.

There is clearly some merit in the social psychologists' notion that either characteristics of the individual himself and/or characteristics of his immediate social environment are important determinants of alienation. Social characteristics of workers such as age, education, and marital status covary with job satisfaction, with younger, less educated, unmarried workers being more alienated (Robinson et al, 1969). Those with higher incomes and prestige, greater task complexity and more extensive control over their work have lower alienation. However, an observed relationship between organization size and job attitudes might be a product of differential labour-force experience, skills, incomes or job characteristics on the part of employees in organizations of different size.

From this perspective, it is also reasonable to expect that the general background and expectations which individuals bring to organizations would influence the way in which they react to them. For example, the impact of organization size on alienation may decrease as a greater percentage of the labour force grows up in large metropolitan areas and receives their education in large organizations. Whether for better or worse, such a situation may produce a shift in human values as people learn to deal with large organizations instead of smaller, more intimate settings (Hall, 1972:131).

Despite the general hypothesis that organization size has a negative impact on the job attitudes and work behaviour of employees, it is also possible that such effects diminish the longer a person is in the organization. Informal social groups develop in all types of organizations at all levels within them and may "intervene" to diminish or cushion the effects of size and complexity. The negative effects of size would be expected to decrease as the individual employee gained experience and was better integrated into the organization. Thus for example, Blau (1974:107) reported that in his case studies of work groups in bureaucracies he found less well integrated marginal officials to be less loyal to the organization and to be "somewhat alienated".

In his 1964 study of 2,577 faculty members in 114 U.S. universities Blau found that the size of the university (number of faculty members) was slightly negatively related (partial beta = $-.16$) to allegiance, even when

other organizational and individual characteristics were controlled (1974:276). This he attributed to the impersonality of large organizations. In an earlier study of two government organizations he found that competition within the work group weakened social cohesion and lowered productivity (1974:141). While we might expect such a situation to be characterized by greater alienation, Blau makes no reference to the subject. Indeed, despite Blau's long term interest in organizational structure and size and some references to their impact on the individual, his attention to alienation in his own review of his work (1974) is fragmentary at best.⁴

Attempts to evaluate the impact of organization size on individual alienation thus face several related problems: 1) there has been too little systematic empirical research on the subject; 2) there are a large number of factors which might reasonably be expected to influence such a relationship - factors related to the structure and process of organizations, factors related to the individual's social position and social characteristics, and factors related to the individual's psychological make-up; 3) perhaps because of this, results using different samples and different measures have proved to be somewhat contradictory. There are a large number of feasible alternative explanations and the distinct possibility that the link between organization size and alienation is indirect and complicated.

Another possible explanation for these inconsistent results is the possibility that such indirect measures of alienation as job satisfaction, feelings of powerlessness and absenteeism may in fact be independent of one another, or even negatively related under certain conditions. Indeed, there is a good deal of evidence to suggest that these attitudes and behaviours are not unidimensional (Vroom, 1964; Katz and Kahn, 1966; Robinson et al, 1969; Wicker, 1969; Seeman, 1959; 1975). However, the lack of unidimensionality in these phenomena does not necessarily mean that we should abandon the concept of alienation. Rather, emphasis should be placed on the clarification of different areas of meaning and efforts directed at elucidating the relationship between different aspects of alienation.

Definitions of Size

There are, however, further conceptual problems in any attempt to link size and alienation. Within the sociological literature the size of an organization is generally defined in terms of its number of employees. While this definition is less clear when organizations are not composed solely of full-time paid employees, such difficulties are reduced somewhat in labour force studies.⁵ Furthermore, while the situation is complicated where clients are an integral part of the organization (for example in hospitals, prisons and schools), the number of clients and the number of employees appear to be very highly correlated.⁶ These differences, then, appear to be of relatively little consequence.

Of greater importance are differences between the scale of operations of an organization and the number of its employees. Organizations with a small number of members may have large assets in industries where the technology is relatively capital intensive. Corporations may involve many different plants or branches or many different types of firms. Where labour costs are a relatively insignificant proportion of production costs it is comparatively inexpensive to buy off discontent. Working conditions may be very good because the total cost

of high wages and generous fringe benefits are trivial. In general, however, scale of operations is closely related to the number of employees, particularly in batch or mass-production industries.⁷

Definitions of Alienation

While the term 'alienation' has become part of our everyday language, and while much has been written concerning both its conceptual meaning and its empirical usage, there are almost as many meanings given to the term as there are authors who write about it. Sociologists, political scientists, psychologists and philosophers argue nominalist and realist positions, debate whether Marx's theory of alienation was primarily normative and prescriptive or predictive and descriptive, disagree as to whether the appropriate unit of analysis for alienation is the individual or society, and distinguish between alienation as a subjective state of mind (and therefore a characteristic of individuals) and alienation as an objective condition of society (as appropriation or as estrangement of production from consumption in Marx's writings). My own position follows that which Peter Archibald (1976a) argues in maintaining that: 1) it is appropriate to quantify alienation and test hypotheses about it; 2) although theories of alienation (Marx's in particular) are normative, alienation can profitably be used as a descriptive concept; 3) alienation refers to characteristics of individuals and that this includes psychological reactions to social conditions both by way of exhibiting certain feelings (e.g. a lack of well-being) and/or actions (e.g. avoiding work "like the plague").

On the highly abstract level of generality Marx's conception of alienation as it applies to individuals entails a separation between their person and 1. their activity in general and their labour in particular; 2. the products of both, which include such aspects of social structure as classes and the state as well as the immediate physical products of labour; 3. other people in general and certain classes of them in particular; and 4. themselves, including their future, fully developed selves. On a more concrete level, the specific relationship between individuals and each of these objects is often characterized by four more or less analytically distinct dimensions: 1. they are indifferent to, not involved with, or detached from the object (the detachment dimension); 2. to the extent that they approach the object at all they use only a few of its characteristics to achieve only a few egoistic, narrowly utilitarian ends (means-ends); 3. the object is not under their conscious control, and they act toward it as if this were the case (control-purposiveness); and 4. they have certain feelings (e.g. powerlessness or misery) about the object (feelings). (Archibald, 1976a:66).

As Archibald goes on to argue, the difficulty in attempting simply to equate consciously expressed job satisfaction with alienation is that there may be considerable psychological pressure exerted towards the suppression of alienation. Robinson (1969) observed that a respondent's job is probably the

best that he or she can find, and since the onus is on the individual, he or she may be reluctant to admit dissatisfaction. People may inflate their satisfaction because otherwise they denigrate their own self-worth (Faunce, 1968). They therefore learn to live with alienating work (Kahn, 1972:179). In fact, attitudes in general and job attitudes in particular turn out to be rather poor predictors of overt behaviour (Kiska, 1974; Wicker, 1969).

However, it is equally clear that behaviour is also subject to the pressures of social control. Workers who express their alienation in the form of overt hostility or rebellion know that they face the threat of punishment (e.g. the obvious possibility that they may be fired). They are therefore much more likely to choose other behavioural strategies which avoid such threats - strategies which may include avoidance where possible, or attempts to limit uncertainty and the scope of activities and involvement (Archibald, 1976b:822). In attempting to measure psychological alienation it is probably wise to develop measures which attempt to take such constraints into account. Investigators might observe behaviour without workers knowing that they were being watched, or they might attempt to probe beneath socially constrained attitudes through the use of in-depth interviews (Terkel, 1972). However, in order to achieve broad spectrum coverage of the labour force, structured interviews or questionnaires might be adapted to avoid references to constrained social situations. The present investigation thus utilizes a variety of operational definitions of alienation that include not only conscious attitudes towards work, but also reported behaviour and behavioural intentions.

Capitalism, Industrialization and Bureaucracy

Perhaps even more troublesome than these definitional problems are the unreconciled differences between theories of alienation that characterize different schools of thought in sociology (Archibald, 1976a:68-70). Marxian theorists, who have largely eschewed empirical research, see capitalism and its characteristic division of labour, commodity exchange, private property and commodity fetishism, as the source of alienation. On the other hand, "mass society" theorists (Seeman, 1959) usually design their empirical research on the premise that it is industrialization in general that, by loosening traditional social bonds, leaves some people without guidance (normlessness), without meaningful social relationships (isolation) and without political efficacy (powerlessness). Finally, there is the Weberian hypothesis that it is bureaucracy itself rather than capitalism or industrialization that is the more general cause of alienation from work (Blauner, 1964). As Gerth and Mills (1946:50) put it, "Marx's emphasis upon the wage worker as being 'separated' from the means of production becomes, in Weber's perspective, merely one special case of a universal trend", a trend towards bureaucratization. "Weber thus identifies bureaucracy with rationality, and the process of rationalization with mechanization, depersonalization, and oppressive routine. Rationality, in this context, is seen as adverse to personal freedom".

The present research, whose primary objective is to investigate the effects of organization size on individuals, is clearly within this Weberian tradition. It cannot hope to investigate adequately hypotheses derived from these different theories. Given the survey information available for analysis (described below), and given the principal directive for this research, attempts to resolve these differences will have to await future research. However, even

as we assess the impact of organization size on individuals' work orientations, we must recognize that these different theories provide possibly competing rationales.

Research Design

In order to examine fully the impact of organizational structure and process as well as individuals' characteristics, the present analysis would require more information than is presently available. Neither of the surveys described below contain any information on organizations beyond some indication of their size and type. They do, however, include many questions relevant to a partial assessment of alienation as well as information dealing with some social characteristics of individuals which may have a bearing on alienation (occupational differences, age, income, education, and, in the U.S. sample, number of co-workers in the more immediate work group). They do not, unfortunately, include detailed measures of behaviour, or in the case of the Canadian survey, measures of job characteristics.

The general analytical strategy begins with an examination of the distribution of organizations by size and its impact on various indicators of individual alienation. Secondly, possible alternative explanations of alienation are controlled and the effects of organization size re-examined. Finally, we will explore the manner in which several of these variables may interact with organization size in influencing alienation.

Two cross-sectional surveys were used to compare the effects of organizations of different size. The first, the "Work Ethic" survey, was conducted in February of 1974 under the auspices of the Department of Manpower and Immigration of the Government of Canada.⁸ In 49 cities a total of 1,973 Canadians between the ages of 16 and 60 were interviewed. The primary aim of the survey was to identify Canadians' attitudes towards work. As part of the survey, they asked respondents who identified themselves as being currently employed (1068 or 54% of the sample) whether, in their present job they were working for: 1. themselves; 2. a small, private business firm; 3. a large business corporation; 4. a government department or crown agency; 5. an agency funded by the government but independent from it; 6. some other kind of employer. While such an operational definition provides a less than satisfactory indication of the size of place of employment and mixes in type of organization as well, it gives a crude size breakdown.

Because of these measurement problems and so as to introduce comparative results, we also examined the effects of organization size in a recent (1972-3) U.S. survey. The Quality of Employment Survey was conducted by the Survey Research Center, University of Michigan, under the sponsorship of the Employment Standards Administration, United States Department of Labor and the National Institute for Occupational Safety and Health. It was based on the 1966-70 Survey of Working Conditions and focused on the effects of working conditions on the well-being of workers. 1496 respondents were interviewed from the population of those 16 years of age or older who reported working for pay 20 hours or more per week. The sampled population included those who generally worked for pay but were not currently working due to strikes, sickness, weather or vacations. The sample was weighted by the number of eligible persons in the household, giving a total weighted sample of 2,157. Of those interviewed (with the appropriate weighting) 249 were self-employed and 1908 worked for someone else. The size of the organization

they worked in was measured by the question: "how many people work at the location where you work - I mean all types of workers in all areas and departments." The distribution of responses was coded in 7 categories ranging from 1-9 people to 2000 or more. Fourteen respondents either did not know or did not reply to this question.

The Measurement of Alienation

While there is an extensive literature dealing with the problems of assessing workers' orientations towards their jobs and their employers (Robinson et al, 1969), the vast bulk of this effort has been directed at the measurement of attitudes, particularly job satisfaction. While the relationship between these attitudes and behavioural indicators of alienation (sabotage, absenteeism, turnover, etc.) remains problematic (Vroom, 1964; Katz and Kahn, 1966:373-7), the present analysis is not directed specifically towards a resolution of these difficulties. Rather, they only underline the necessity of including what few indicators of overt behaviour there are available in these surveys.

The Canadian Work Ethic Survey contained a large number of items designed to tap attitudes towards work, but questions were sometimes poorly constructed.⁹ Selecting the questions that appeared to have some face validity as measures of alienation, an exploratory factor analysis (varimax, with orthogonal rotation; Nie et al, 1975) was used in an attempt to help distinguish different dimensions of alienation and to allow the many items to be collapsed into a more usable number of indices. This included all items in which reports of work behaviour were gathered. Where necessary items were recorded so that a high score indicated greater alienation (items are listed in Appendix A). The factor analysis was used only as an exploratory procedure. In the factor analysis of the Canadian data (Appendix B, Table 1), the three items which loaded highest on factor I all dealt with general job satisfaction (reverse coded to indicate alienation). In constructing an index of this factor the two "sense of accomplishment" items which loaded highly on factor IV were also included to improve reliability, since they too were positively loaded on factor I.¹⁰ Indexing procedures included standardizing and averaging the items without using factor weights. In the case of this index of General Attitudinal Alienation from work the five item index was moderately reliable (Alpha =.691).

A second scale was constructed in a similar manner from the four items which loaded highly on factor II (again without regard to factor weights). All items included some reference to unemployment as a preferred choice over work. This preference for avoidance of work was taken as an indication of alienation and the Avoidance Index had a relatively low reliability (Alpha =.551).

The fifth factor was highly correlated with items referring to conditions outside of the work itself (the "extrinsic motivators") with most of the items referring to money. To the degree that work was seen in a narrow utilitarian sense as only a way to make money (the means-ends dimension discussed above), respondents were characterized as more highly alienated. This Means-ends Index also had only a modest reliability (Alpha =.567).

Finally, simple indices were formed from the two items that referred to Lateness and the two items that referred to Voluntary Overtime (factors VI and III respectively). The relatively low zero-order correlations between these five indices (Appendix B, Table 2) provided some support for the retention of these different measures of alienation in the analysis to follow.

In the U.S. Quality of Employment Survey there were an even larger number of questions which had a bearing on subjective alienation from work. A preliminary factor analysis was used to identify the main clusters of attitude items and these were then factor analysed again along with all items referring to behavioural intentions or to behaviour itself (items are listed in Appendix A). The results of this (varimax orthogonal) analysis (Appendix B, Table 3) yielded a subjective Intrinsic Alienation factor (factor II) referencing the degree to which the respondent perceived his job as interesting, challenging, allowing him to decide how to do his own work and so on. The reliability of this scale measuring subjective alienation from work itself formed as the (unstandardized) average of these six items was fairly high ($\text{Alpha} = .833$).

A second scale was formed as the average of five clusters of items (factors I, III, IV, V, VII). Within each cluster items with high loadings had very similar meanings, (social alienation, supervision, remuneration, rules and resources, promotion) with all twenty items referring to the extrinsic aspects of work. Extrinsic alienation thus refers to negative feelings about aspects of work other than the job itself. The reliability of this scale was high ($\text{Alpha} = .895$).

A third scale was formed as the average of two items that were moderately loaded (around .40) on the factor from which the Intrinsic Alienation Scale was formed. Both items represented reported behaviour - doing extra work voluntarily and making suggestions (reverse coded). Finally, a fourth scale was composed of the four items loaded on factors VI and VII (Appendix B, Table 3). In each of these items alienation from work was measured in hypothetical relatively unconstrained situations (recommending one's job to a friend or deciding to choose the same job again if one were free to start over). This scale had a more modest reliability ($\text{Alpha} = .67$).

In general, behavioural intentions and reported behaviour received much less attention than did attitudes in both the U.S. and the Canadian surveys. It is not surprising, therefore, that scales constructed from these few items were relatively unreliable. Perhaps as a consequence, there were relatively low zero-order correlations observed between these different scales (Appendix B, Table 4), although the correlations are somewhat higher in several cases than those observed for the Canadian data (Appendix B, Table 2). The Reported Behaviour Index was relatively unrelated (linearly) to the attitudinal dimensions (correlations ranging from .084 to .277). However, the correlations between the different attitude dimensions (including behavioural intentions) were somewhat higher (.393 to .597). Since the same factor structure was obtained using oblique rotation, the higher correlations between different indices within the U.S. data do not appear to result from the specific techniques used.

As is often the case in the sociological literature (Kiska, 1974), reported behaviour was only modestly related to attitudinal measures in both the U.S. and Canadian samples. While this may have resulted in part from the lack of measurement effort directed at behaviour, it is probably attributable in large measure to differing constraints placed on attitudes and behaviour.

The correlations between different attitude dimensions are much stronger in the U.S. data than they are in the Canadian survey. Scales constructed for the Canadian data involve greater measurement difficulties (fewer items and lower reliabilities), and items lacked the history of use that the items used in the U.S. survey have enjoyed. Besides, items are not directly comparable. All of the U.S. items refer to the respondents' jobs, while in the Canadian survey, items in the Avoidance index refer to unemployment. In retrospect, it is not surprising that some respondents were both satisfied with their jobs and viewed work as a means to an end (Means-ends), while others did not. At any rate, the presence of very low correlations in the Canadian data and moderate ones in the U.S. survey does not necessitate different analytical treatment. While the indices formed for the Canadian data appear to be less reliable, they also appear to tap a wider range of content and may in fact provide a closer fit to theoretical definitions.

Organization Size and Alienation

Even a cursory examination of the distribution of employees across organizations of different size (U.S.) or across employers of different types (Canada) revealed that a high percentage of the labour force did not work in large organizations (Table 1). While 11.45% of the U.S. sample reported that they were self-employed, only 7.8% of the Canadian sample put themselves in that category. In the Canadian sample 39% claimed to work for large private business organizations and 39.6% of the U.S. sample reported employment in organizations with 100 or more workers. Only 13.9% of the latter sample worked in organizations with 1000 or more employees. While the question asked of the Canadian sample made exact estimates of size impossible, over 50% of the U.S. sample worked in organizations where fewer than 50 people were employed.

When we turned to the various measures of alienation we found that only about 15-20% of the U.S. sample admitted to being dissatisfied with their jobs.¹¹ However, different methods of questioning seemed to indicate different levels of alienation. When asked "if you were free to go into any type of job you wanted, what would your choice be?", 50.7% of the U.S. sample indicated that they would choose some job other than their present one and a further 5.5% indicated that they preferred not to work at all. While only 20% of the U.S. sample reported rarely or never working voluntary overtime, 33.2% reported not making suggestions with respect to improving their jobs.

In the total Canadian sample, only 236 respondents (13.4%) claimed that they preferred never to work and almost 90% of those were either retired, disabled or were housewives. Of those in the labour force only 17.8% disagreed with the rather strong statement "I love my job and the place I work in", but 29.9% indicated that they worked more because they had to than because they liked to and 39.4% agreed that they "wouldn't mind being unemployed for awhile". Turnover was fairly high (20.8% had held two or more jobs during 1973), particularly for the young (44.9% of those under 25 had held two or more jobs during 1973). While respondents wanted to work and claimed to be satisfied

with their jobs, many changed jobs (perhaps, of course, to get better ones), some appear to be satisfied only out of necessity, and even more said that they would be willing to give up work for awhile.

Table 1
DISTRIBUTION OF EMPLOYEES BY SIZE OF
ORGANIZATION AND TYPE OF EMPLOYER

<u>Canada</u>			<u>U.S.A.</u>		
<u>Type of Employer</u>	<u>N</u>	<u>%</u>	<u>Size of Organization</u>	<u>N</u>	<u>%</u>
1. Self	83	7.8	1-9	546	26.2
2. Small Private Business	195	18.3	10-49	507	24.3
			50-99	206	9.9
3. Large Corporation	417	39.0	100-499	394	18.9
4. Government	190	17.8	500-999	142	6.8
5. Agency Funded by Government	89	8.3	1000-1999	84	4.0
			2000 and above	207	9.9
6. Other	85	8.0	Total N	2,086	
Missing	9	.8			
Total N	1,068				

Type of Employer and Alienation: Canada

The relationship between size and alienation for the Canadian sample was examined in a one-way analysis of variance (Table 2). There were significant differences between types of employers for three of the indicators of alienation: General Attitudinal Alienation, Means-ends (extrinsic), and reported Voluntary Overtime. However, in no instance was the percentage of variance explained anything more than modest. The largest correlation ratio (n^2) was .071 for (lack of) voluntary overtime. The largest difference between the means for different types of employers was between the relatively high frequency with which the self-employed worked voluntary overtime and the relative lack of such behaviour on the part of those working in large private corporations.

Compared to all others the self-employed reported that they felt and acted less alienated. The largest differences were observed in terms of working overtime and the General Attitude Index. The hypothesis that small private business should be less alienating than larger ones was borne out for only three of the indices (Means-ends, Attitudinal and Overtime) and in the

Table 2

ALIENATION AND TYPE OF EMPLOYER: ONE-WAY ANALYSIS
OF VARIANCE RESULTS FOR CANADIAN DATA

Type of Employer	<u>General Attitudinal Alienation</u>	<u>Avoidance</u>	<u>Means-ends</u>	<u>Lateness</u>	<u>Voluntary Overtime</u>	<u>N</u>
1. Self	-.218	.0216	-.059	-.035	-.670	83
2. Small Private	.039	.019	.095	.072	.010	195
3. Large Private	.069	-.040	.096	-.046	.200	417
4. Government	-.072	-.018	-.103	.025	-.020	190
5. Agency Funded by Government	-.051	.031	-.272	.132	-.201	89
6. Other	-.071	.142	-.098	-.122	-.052	85
Total	-.006	.0002	.002	.002	-.0005	976
F	3.63	1.23	8.69	1.37	16.05	
P	.003	.293	.000	.231	.000	
n ²	.017	.006	.040	.006	.071	

first two cases the differences were very small (.001 and .030 respectively). The fact that those who worked in small private business were more likely to have reported that they came in late and that they worked voluntary overtime more often did seem to indicate that they enjoyed more flexible working conditions (less formalization, less rigidity).

When we examined the differences between those who worked for the government and all others we found that only in terms of the Lateness Index did government employees act in a manner that might be labelled as more alienated than the rest of the sample. Even so, differences were very small.

Size and Alienation: The U.S. Sample

Similar analysis for the U.S. Quality of Employment sample (Table 3) revealed only small differences between size categories, particularly on Extrinsic Alienation. For all four dimensions of alienation there was a slight tendency for larger size to coincide with greater alienation. The strongest linear relationship occurred between size and Intrinsic Alienation, but even here, the magnitude of the linear correlation coefficient was small ($r = .233$). The

Table 3

ORGANIZATION SIZE AND ALIENATION: ONE-WAY ANALYSIS
OF VARIANCE RESULTS FOR THE U.S. QUALITY OF EMPLOYMENT SURVEY

Organization Size	Behavioural Intentions	<u>Means</u>		
		<u>Reported Behaviour</u>	<u>Extrinsic Alienation</u>	<u>Intrinsic Alienation</u>
1. 1-9	1.51	-.121	1.78	1.59
2. 10-49	1.59	.015	1.80	1.79
3. 50-99	1.62	.140	1.85	1.88
4. 100-499	1.59	.080	1.81	1.97
5. 500-1000	1.58	.055	1.90	1.97
6. 1000-1999	1.63	-.175	1.90	2.11
7. 2000 and over	1.64	-.009	1.81	2.07
Total	1.58	-.003	1.81	1.84
F	3.03	4.70	2.01	23.73
P	.006	.0001	.062	.0000
r	.072	.036	.045	.233
n ²	.008	.013	.006	.063
F	1.40	5.06	1.53	3.64
P	.222	.0001	.179	.003

relationship between size and alienation was also slightly curvilinear in this instance. Alienation increased at a decreasing rate across the first five size levels and then increased again in organizations with more than 1000 employees only to drop slightly in the largest size category (2000 or more). While there was a general tendency for the highest degree of alienation to be registered in the largest organizations, the trend for Behavioural Intentions was for the greatest alienation to occur at the middle size levels (50-99 employees) with perhaps an overall quadratic relationship. However, the percentage of variance in alienation accounted for by differences between size categories remained low (1.3% in the case of Behavioural Intentions).

The Michigan researchers also obtained estimates of the number of co-workers for each respondent. This enabled us to examine the hypothesis that it was the size of the immediate work group rather than the organization as a whole which was more influential in conditioning alienation. However, the results obtained (Table 4) fail to confirm this hypothesis at the elementary level. Even the non-linear differences in number of co-workers accounted for a maximum of less than one per cent of the variance in alienation. In addition, those with the largest co-worker groups appeared to be the least alienated on every dimension of alienation. The presence of small work groups

Table 4

NUMBER OF CO-WORKERS AND ALIENATION:
THE U.S. QUALITY OF EMPLOYMENT SURVEY

Number of <u>Co-workers</u>	<u>Means</u>			
	<u>Behavioural Intentions</u>	<u>Reported Behaviour</u>	<u>Extrinsic Alienation</u>	<u>Intrinsic Alienation</u>
0	1.54	.122	1.88	1.78
1-5	1.60	-.032	1.80	1.84
5-10	1.58	-.002	1.80	1.87
10-20	1.60	-.012	1.87	1.87
20-97	1.53	-.122	1.76	1.78
Total	1.58	-.000	1.81	1.84
F	1.31	3.70	4.75	1.49
P	.266	.005	.001	.202
r	.000	-.063	-.033	.016
n ²	.002	.007	.009	.003
F	1.74	2.06	5.53	1.80
P	.157	.104	.001	.146

was not uniformly linked to a lack of alienation.¹²

Indeed, other factors seemed to be more strongly linked to alienation than was size. Both age and length of time working for the company (tenure) were slightly negatively correlated to several of the alienation dimensions, as were income and education (Appendix B, Table 4). The highest linear correlations were between job complexity and Intrinsic Alienation (alienation from work itself) and Behavioural Intentions ($r = .402$ and $-.334$ respectively).

To summarize:

1. In both the U.S. and Canadian samples a minority of the population surveyed worked in large organizations. For this reason alone the total impact of size on alienation was not large.
2. There did appear to be a relatively large minority of the population that might be classified as "alienated" from their work, particularly when measures other than conscious attitudes were evaluated.

3. While there was a general tendency for size and alienation to covary positively, the relationship was weak in both data sets. In the Canadian sample there was some tendency for the self-employed and those who worked in small private business firms to be less alienated than those who worked in large corporations, but differences were somewhat irregular and often small.
4. The fairly weak relationship that existed between size and alienation in the U.S. sample appeared to be roughly linear except in the case of Behavioural Intentions. There, greater alienation was exhibited in medium-sized organizations.
5. While the size of the immediate work group was relatively unrelated to alienation (even less so than the size of the organization), social characteristics of individuals (age, education, income) and characteristics of their jobs (complexity) were more strongly correlated with alienation. This was particularly true of job complexity. Even the observed small positive relationship between organization size and alienation might be a product of such factors.

Multivariate Analysis of the Work Ethic Survey (Canada):
Attitudinal Alienation From Work (Job Dissatisfaction)

In an attempt to explain size (and type of employer) difference in alienation we introduced statistical controls for the age, education, income and occupation of the respondents. The multiple classification analysis (M.C.A.) procedure used adjusted the means for different size and type of employer categories taking into account distributions on the control variables. Essentially, the procedure performed a multivariate dummy variable regression.

In the Canadian Work Ethic Survey all these variables together (including type of employer) explained relatively little of the variation in Attitudinal Alienation ($R^2 = .078$, Table 5). However, although differences from the grand mean were reduced by the introduction of controls, type of employer remained a relatively important variable and the pattern of adjusted means was almost identical to that for the unadjusted means (Table 2). The largest adjustment introduced by the controls occurred for the self-employed, but they remained the least alienated on this dimension. Those employed in large private corporations remained the most alienated, but the difference between their average score and that for respondents employed in small private businesses was reduced. These same controls resulted in a slight increase in differences between both these types of private employment and government employment. The latter were slightly less alienated. Government workers were less likely to feel that hard work yielded no feeling of accomplishment, to feel that their work was drudgery, or to have little commitment to their jobs. Since the government is, if anything, an even larger and more complex organization than most private businesses, it appeared that factors other than sheer size had important effects on consciously expressed attitudes.

Attitudinal Alienation from work was also a monotonic decreasing function of age ($\beta^2 = .022$) and income ($\beta^2 = .008$) and was more heavily dependent on occupational differences ($\beta^2 = .044$). Labourers were

Table 5

TYPE OF EMPLOYER AND ALIENATION (CANADA) : ADJUSTED MEANS
CONTROLLING FOR AGE, EDUCATION, INCOME AND OCCUPATION

Type of Employer	Attitudinal Alienation	Avoidance	Means		Voluntary Overtime
			Means-ends	Lateness	
1. Self	-.111	.116	-.017	.090	-.437
2. Small Private	.041	-.054	.083	.040	-.094
3. Large Private	.067	-.003	.054	-.069	.156
4. Gov't	-.089	-.034	-.047	.026	.045
5. Gov't Funded	-.030	.034	-.095	.211	-.097
6. Other	-.063	.040	-.040	-.040	-.048
Grand Mean	.0033	.0016	.0158	.0050	.0109
Beta ²	.0222	.0045	.0095	.0094	.0335
R ²	.0781	.1675	.2142	.0420	.2645

appreciably more alienated than other occupational groups with an adjusted mean for unskilled labour of .235. This indicated far greater alienation than was exhibited for any type of employer.

Avoidance

While employer differences were less important in predicting the variability of the Avoidance Index ($\text{beta}^2 = .004$), R^2 was considerably greater (.168). Perhaps the most noticeable effect of introducing the controls was the increase observed in the relative alienation of the self-employed. They had an adjusted mean of .116 compared to an unadjusted mean of .022. While the self-employed were the least alienated in terms of their enjoyment of the job and their commitment to it (Attitudinal Alienation), they expressed attitudes which would indicate that under some conditions they would prefer unemployment to work. We might speculate that they felt constrained to express positive attitudes towards their jobs because they supposedly control their own employment conditions. At the same time the rather precarious nature of self-employment and the rather high demands it makes may have encouraged some of them to "wish" that they could give it all up.¹³

For the Avoidance Index alienation was again a monotonic decreasing function of income. The differences in alienation across levels of income were fairly large ($\text{beta}^2 = .194$), ranging from an adjusted mean of .506 for those earning less than \$5,000 to an adjusted mean of -.454 for those with

incomes of over \$20,000. Not surprisingly, unemployment represented a considerably more attractive alternative to work among those who received lower incomes. The desire to work at all seemed to be rather heavily conditioned by the amount of money received - a condition that some would deplore as overly materialistic and alienating in that sense alone.

Means-ends Alienation

The introduction of controls considerably reduced type of employer differences in the tendency for respondents to see work in a narrow utilitarian sense (as only a way to get money). However, the pattern of differences remained the same with those employed in private business (large or small) exhibiting somewhat greater alienation. Those employed directly or indirectly by the government expressed relatively low alienation.

The dimensions which contributed most to the explanation of means-ends alienation were occupation, education and income (Table 6). If occupation was viewed in terms of a rough hierarchy of quality of work, a curvilinear pattern emerged. Those with professional or technical occupations were the least alienated, while unskilled labourers were the most highly alienated even when education and income differences were controlled. Skilled labourers and service workers were the next most highly alienated. However, executives, managers and proprietors were slightly above average in their tendency to see work in a narrow utilitarian sense and surprisingly, clerical workers were less alienated than all other occupational groups except professionals.

While the differences for education were somewhat less striking, Means-ends alienation appeared to be an inverse monotonic function of level of education received. It was also a negative monotonic function of level of income. Respondents with low education and low incomes were relatively more likely to view work only as a way to make money.

Reported Behaviour: Lateness and Voluntary Overtime

Type of employer differences were very small ($\beta^2 = .0094$) for the Lateness Index, a situation that represented little change from the analysis without controls. In fact, the percentage of variance in Lateness accounted for by all five predictors was very low ($R^2 = .042$). Lateness was a roughly inverse monotonic function of age with adjusted means ranging from .278 for the 16-19 year old cohort to -.268 for the 45-54 year old cohort (but dropping slightly to -.254 in the 55 and over cohort). Of the six occupational categories, only executives (-.179) and clerical workers (.196) were appreciably different from the grand mean (.005).

Type of employer differences in self-reported Voluntary Overtime (reverse coded to indicate alienation) were substantially larger ($\beta^2 = .034$). Once again, the pattern of differences was not radically altered from that observed without the controls (Table 2). The self-employed appeared to be the least alienated (-.437) and those employed in big business were the least likely to work voluntary overtime (.156).

Occupation ($\beta^2 = .093$) and income ($\beta^2 = .046$) were once again the best predictors of alienation. Infrequency of voluntary overtime was an inverse monotonic function of income with those earning less than \$5,000 averaging .250 and those earning over \$20,000 scoring -.445. The more

Table 6

OCCUPATION, EDUCATION, INCOME AND MEANS-ENDS ALIENATION:

ADJUSTED MEANS FOR THE CANADIAN WORK ETHIC SURVEY*

<u>Occupation</u>	<u>Adjusted Means</u>	<u>Education</u>	<u>Adjusted Means</u>	<u>Income</u>	<u>Adjusted Means</u>
1. Executives, Managers, Owners	.070	1. none to completed public school	.174	1. under \$5,000	.255
2. Professional, Technical	-.196	2. some secondary to finished high school	.101	2. \$5,000 - \$8,000	.147
3. Sales	-.011	3. non-univ. post-secondary	-.079	3. \$8,000 - \$12,000	-.001
4. Clerical	-.142	4. university Beta ²	-.185 .049	4. \$12,000 - \$16,000	-.158
5. Skilled Labour, Service	.126			5. \$16,000 - \$20,000	-.422
6. Unskilled Labour	.212			6. \$20,000 or over	-.441
Beta ²	.065			Beta ²	.021

* - Adjusted means controlling for type of employer, age and where relevant, occupation, education and income.

respondents earned, the more likely they were to report more voluntary overtime.¹⁴

Labourers in general were less likely to work overtime (adjusted means of .265 for skilled labour and .301 for unskilled labour) than were other occupational groups, particularly executives (-.313) and sales workers (-.417). In fact, the split here seemed to be along white-collar blue-collar lines with professionals and clerical workers also registering relatively low alienation (-.246 and -.144 respectively). Those that had "better" jobs and received higher incomes were more likely to report working overtime voluntarily.

Comparisons with U.S. Results

Parallel analysis for the sample of the U.S. labour force yielded generally similar results (Table 7). While organizational size was measured more accurately in this survey, it had a noticeable effect on alienation (net of age, income, education and occupation) for only the Intrinsic Alienation Index (alienation from work itself). The weak positive relationship between organization size and alienation observed in the bivariate analysis remained even with the controls. Even with Intrinsic Alienation, the degree of alienation expressed in even the largest organizations was relatively modest (Table 7).

Table 7

ORGANIZATION SIZE AND ALIENATION: ADJUSTED MEANS
CONTROLLING FOR AGE, EDUCATION, INCOME AND OCCUPATION (U.S.)

<u>Organization Size</u>	<u>Means</u>			
	<u>Behavioural Intentions</u>	<u>Reported Behaviour</u>	<u>Extrinsic Alienation</u>	<u>Intrinsic Alienation</u>
1. 1-9	1.488	-.0911	1.763	1.612
2. 10-49	1.582	.0245	1.814	1.810
3. 50-99	1.551	.1529	1.799	1.660
4. 100-499	1.554	-.0038	1.781	1.894
5. 500-999	1.566	-.0873	1.894	1.915
6. 1000-1999	1.584	-.3002	1.850	2.078
7. 2000 or more	1.627	-.0753	1.848	2.325
Grand Mean	1.557	-.0371	1.806	1.827
Beta ²	.0080	.0095	.0057	.0417
R ²	.1300	.1514	.0392	.2740

Alienation was a negative, roughly monotonic function of age for both the Behavioural Intentions and Intrinsic dimensions (beta² = .068 and .023 respectively). While educational differences were important for Reported Behaviour and Intrinsic Alienation in bivariate analyses, the introduction of controls largely wiped out these effects (beta² was less than .01 in all instances). Income differences retained some predictive power with Behavioural Intentions, Extrinsic Alienation and Intrinsic Alienation (beta² = .019, .024 and .026 respectively). While these three dimensions were all decreasing monotonic functions of income, differences were not particularly large.¹⁵ Similar results were observed for occupational differences, although in several cases (Reported Behaviour and Intrinsic Alienation) differences were somewhat larger than those observed for income.

Generally, the manager-official-proprietor and professional-technical categories had the lowest alienation, while clerical workers and labourers had the highest alienation.¹⁶

Occupational Complexity

Given the importance of occupational differences in both Canadian and U.S. samples, it appeared worthwhile to pursue its meaning and the question of whether size differences merely reflected differences in the quality of employment available in organizations of different size. Since the information on the U.S. sample included Dictionary of Occupational Titles (D.O.T.) codes, an objective index of occupational complexity was constructed by combining job classifications of complexity with regard to data, people and things. The procedure followed replicated that outlined by Colburn (1973:47-51) and yielded a six-point scale coded from high complexity (1) to low complexity (6).

While organizational size and job complexity were significantly related ($F = 9.75$, $p < .001$), the linear correlation was low ($r = .13$), as was the correlation ratio ($\eta^2 = .027$). There was only weak support for the hypothesis that increasing size was associated with decreasing job complexity. However, job complexity appeared to be strongly associated with Intrinsic Alienation (as were occupational differences). The greater the complexity of the job, the lower the individual alienation expressed in conscious attitudes. While the pattern of adjusted means remained the same (Table 8), differences were reduced somewhat by controls for age, education, income and organization size.

Table 8

JOB COMPLEXITY, ORGANIZATION SIZE AND ALIENATION: U.S. RESULTS

One-Way Analysis of Variance			Multiple Classification Analysis*		
<u>Organization Size</u>	<u>Average Job Complexity</u>	<u>N</u>	<u>Job Complexity</u>		<u>Adjusted Mean Intrinsic Alienation</u>
1-9	3.36	546	High 1		1.55
10-49	3.65	507		2	1.66
50-99	4.06	206		3	1.69
100-499	3.87	394		4	1.89
500-999	3.98	142		5	1.95
1000-1999	4.31	84	Low 6		2.07
2000 +	3.89	207	Beta ²		.066
Total	3.73	2,086			

* - Controlling for organization size, respondents' age, education and income.

Summary

On the basis of these results it would seem reasonable to conclude that there was a weak positive relationship between organization size and alienation. While this relationship was partially a function of respondents' age, education, income and occupation, it could not be fully accounted for by these variables. Furthermore, these controls did little to alter the pattern of the relationship between size and alienation. There was still some tendency for the largest organizations to employ people with higher alienation. This relationship was strongest for Intrinsic Alienation (Attitudinal Alienation in the Canadian sample) and for reported behaviour in the Canadian sample (Voluntary Overtime).

For all of the dimensions of alienation in both U.S. and Canadian samples other variables proved to be more important than size in accounting for differences in alienation. Alienation was often a negative monotonic function of the respondent's age, income and job complexity. Still, the interpretation of observed differences was difficult. Does decreasing alienation with increasing income mean that most people can be "bought off"? Is the adjustment that older respondents make in expressing lower alienation born of better integration and greater maturity, or is it the product of learning to live with a reality which they find they cannot change? These questions cannot be answered with the data at hand.

Interaction Effects

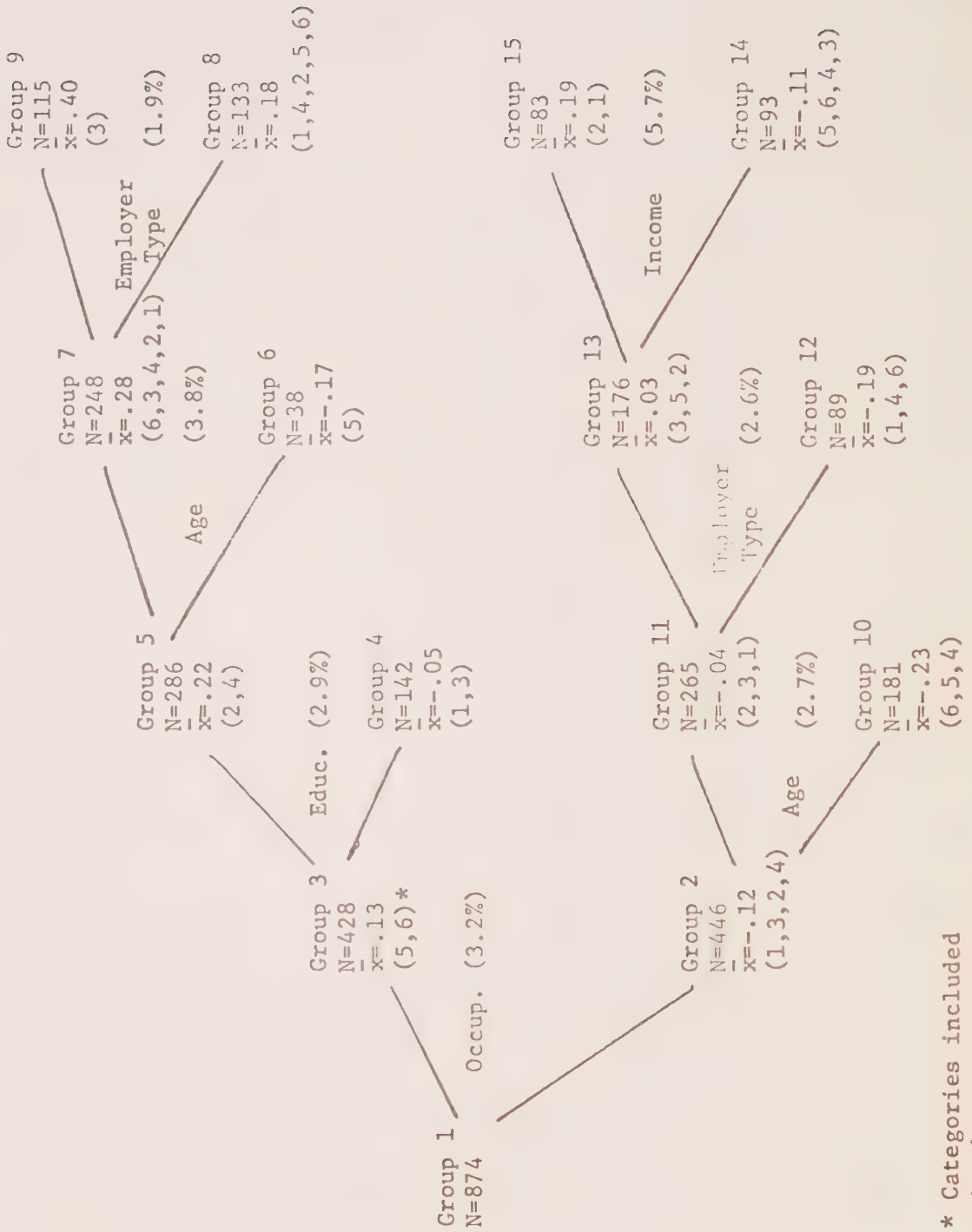
The preceding analysis examined the effects of size on alienation net of respondents' age, education, income and occupation. It was designed to find out whether size differences in alienation could be explained away by other factors and to examine the net effects of these alternative predictors. In order to explore possible interactions between these variables as they affected alienation, both the U.S. and the Canadian samples were analyzed using A.I.D. (Aid to Interaction Detection). In interpreting this analysis we focused on the preliminary identification of combinations of characteristics that were associated with relatively extreme alienation scores, particularly as they involved organization size or type of employer.

The A.I.D. procedure began by dividing the sample into two maximally different "alienation groups" using whatever predictor variable best maximized between-group differences. This was repeated for each of the groups so created with all predictors considered at each step. No constraints were placed on which categories of the independent variables were to be combined to form the split groups (i.e. the variables were "free").¹⁸

Results for the Canadian sample are reported in Figures 1 through 5. The first figure depicts the "tree" that resulted from the analysis of the Attitudinal Alienation Index. The first two groups were formed by splitting the sample with complete data on all variables (Group 1, N = 874) into two groups on the basis of occupation. Group 2 included those (N = 446) who had

Figure 1

Individual Characteristics, Type of Employer and Attitudinal Alienation:
A.I.D. Results for the Canadian Work Ethic Survey



* Categories included
in the group. For codes
see Appendix A.

white-collar occupations, while Group 3 included those who had blue-collar and service occupations (N =428). The white-collar group had average alienation scores of -.12 compared to a mean of .13 for the blue-collar group. The difference between these two occupational groups explained 3.2% of the variation in the Attitudinal Index.

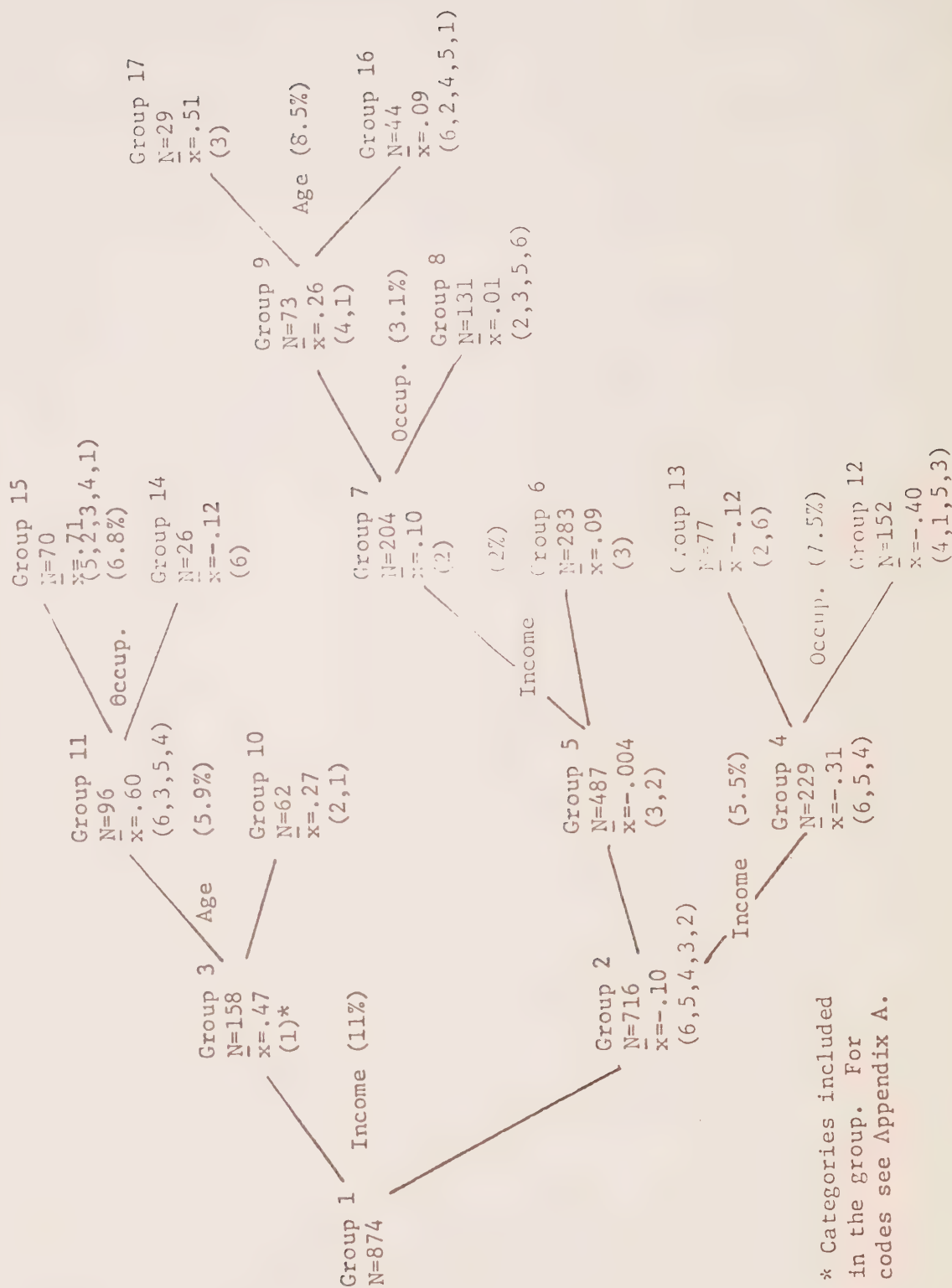
The characteristics that produced the lowest degree of alienation were the combination of white-collar occupation and age 35 years or more (181 subjects or 20.7% of the sample). They had a mean alienation score of -.23. However, even relatively young (below 35) respondents with white-collar occupations who were also self-employed, worked for the government, or fell into the ambiguous "other" category (N=89) had relatively low alienation scores (\bar{x} =-.19).

Perhaps the most interesting results were obtained in the tentative identification of the combination of characteristics that produced the highest alienation expressed in these conscious attitudes. The 248 respondents with blue-collar occupations who had completed high school or attended university and were not in the middle-aged 45-54 cohort were highly alienated, particularly if they also reported employment in large private corporations. This group was particularly interesting in that it exhibited a combination of statuses (low status blue-collar occupations but high levels of education) that might be considered to be "inconsistent". While previous analysis by type of employer showed that those employed in large private corporations were the most alienated in terms of general attitudes (.069, Table 2) even with controls (.067, Table 5), a particular status-inconsistent sub-group within that type of employment exhibited substantially greater alienation (.40).

Type of employer was not involved in the results obtained for the analysis of the Avoidance Index (Figure 2). The greatest alienation (.71) was observed for the 70 respondents who had low incomes (less than \$5,000 per year), were not young (25 years of age or older) and had occupations other than that of unskilled labourers. In a sense, being young may have excused low income (perhaps through expectations of future upward mobility), and even if one was not young but had very low income, having a job as an unskilled labourer somehow resulted in far lower alienation than did any other kind of employment. Having low income in and of itself produced a considerably higher inclination for respondents to say that they would choose not to work (to be unemployed). Of these (N=158), the young were perhaps more likely to rationalize their position and maintain a positive evaluation of their jobs. Of those over 25 years of age (with low incomes) it is possible that unless they had the excuse of holding a very poor status job (unskilled labour), they were likely to be relatively alienated. Again there appeared to be some element of status inconsistency involved in the combination of characteristics that produced the greatest alienation. It was not simply the young and/or those employed as labourers who had the highest alienation. In fact, the opposite appeared to be the case.

The results obtained from the analysis of the Means-ends Index (Figure 3) were more ambiguous. Those in blue-collar occupations were more likely to work as simply a means to an end (money) and both the white-collar and the blue-collar groups split on education in a fairly straightforward manner with higher education producing lower alienation in each case. Of the four groups that resulted only the white-collar highly educated group (Group 4) was not split

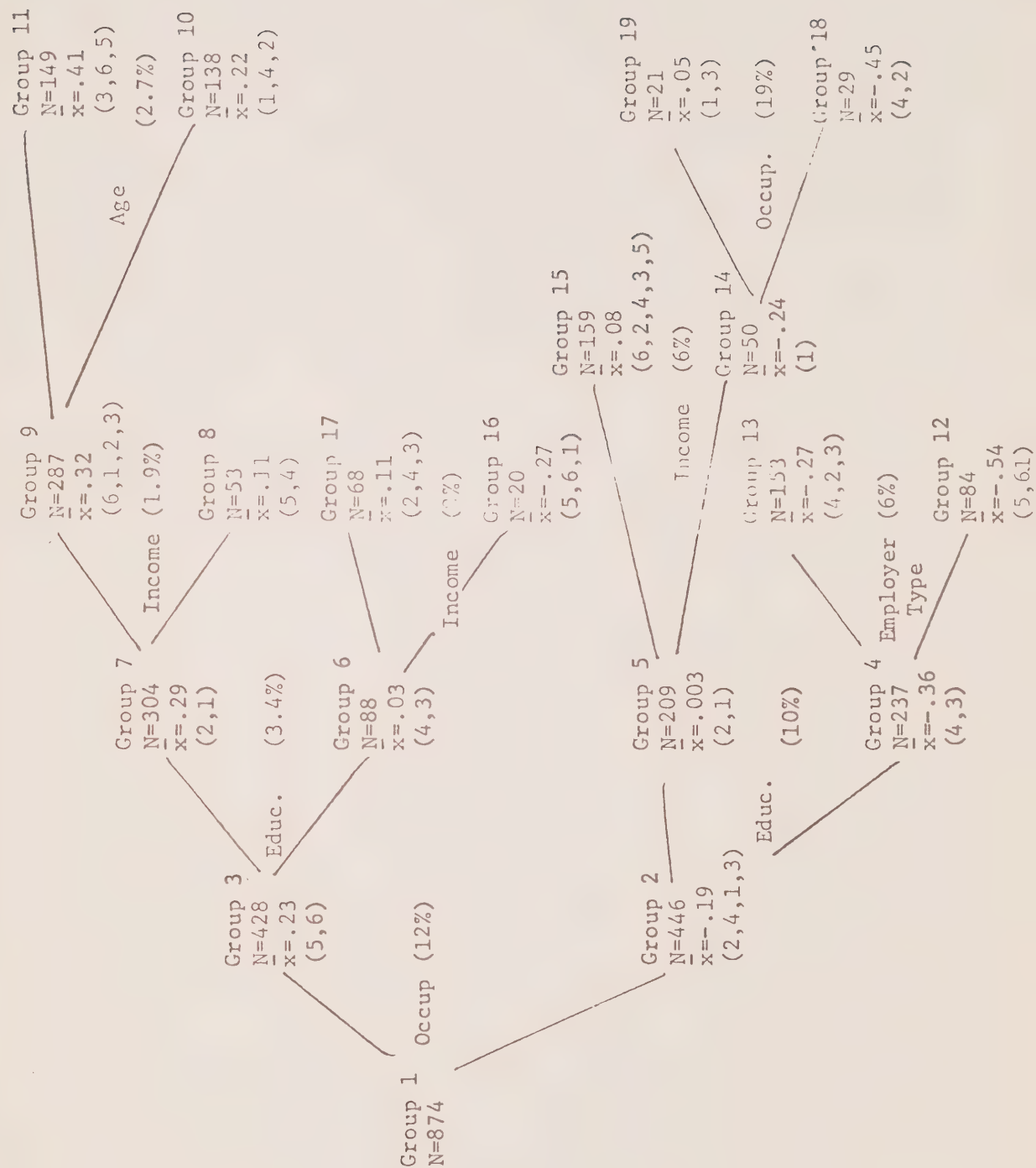
Individual Characteristics, Type of Employer and Avoidance: A.I.D. Results for the Canadian Work Ethic Survey



* Categories included in the group. For codes see Appendix A.

Figure 3

Individual Characteristics, Type of Employer and Means-ends Alienation:
A.I.D. Results for the Canadian Work Ethic Survey



on income. Of this group, those who did not work for the government or for private business (Group 12, N =84) were the least alienated ($\bar{x} = -.54$). This may have involved those working in somewhat smaller organizations, although the inclusion of those employed in small private businesses in Group 13 makes such conclusions tenuous at best. On the other hand, while Groups 5, 6 and 7 were all split on income, the results were non-monotonic for all blue-collar workers (Groups 6 and 7), no matter what their education. In both cases moderate incomes had more moderate alienation scores (Groups 17 and 8), while both high and low incomes had more extreme alienation scores. For those with high educations high or low income was associated with lower alienation, while for those with lower educations the opposite was true. Only for the white-collar workers with low education (Group 5) did the split prove more simple. However, in this case the lowest income group had the lowest alienation. These results directly contradicted those obtained with an additive model (Table 6). For that model Means-ends Alienation was a negative monotonic function of income. High status occupation combined with low education and very low income again yielded results consistent with the status inconsistency hypothesis, but in this instance the result was lower alienation.

Succeeding splits on age (Group 9) and occupation (Group 14) were difficult to interpret, although there was some tendency for older cohorts to express greater alienation (again the opposite conclusion drawn from additive models). The white-collar low-education very low-income group (Group 14) was split on occupation so that professional-technical and clerical workers formed a small group (Group 18) that expressed substantially less Means-ends Alienation than did sales workers and executives.

Analysis of the Lateness Index (Figure 4) split first on age with those 45 years of age and older having lower alienation ($-.29$). Given the criteria employed in the analysis,¹⁸ this latter group could not be split on any combination of any categories of the predictors. The youngest two-thirds of the sample were split on age once again. Those 16-24 (Group 5) exhibited higher alienation. Within this group, those who worked for government or for agencies funded by the government had substantially higher alienation ($\bar{x} = .58$) than those in other types of employment. Very young workers (24 or younger) in large organizations were more likely to admit to frequent lateness. This fairly small group (N =46) was split along occupational lines. Professional and clerical workers reported more frequent lateness than did other types of workers. These results once again provided a very different interpretation from that reached on the basis of the additive model. White-collar occupations, when they were located in large organizations and filled by very young respondents were more rather than less alienating than other types of work.

Figure 5 illustrates the results obtained for the analysis of the Voluntary Overtime Index (reverse coded to indicate alienation). As was the case with the Means-ends Index and the General Attitude Index, the initial split on occupation divided the sample into white-and blue-collar groups. The blue-collar workers (Group 3) were divided by type of employer into those who worked for government or big business corporations versus all others (Group 4). Higher alienation was associated with working in a blue-collar occupation in large organizations.

Figure 4

Individual Characteristics, Type of Employer and Lateness:
A.I.D. Results for the Canadian Work Ethic Survey

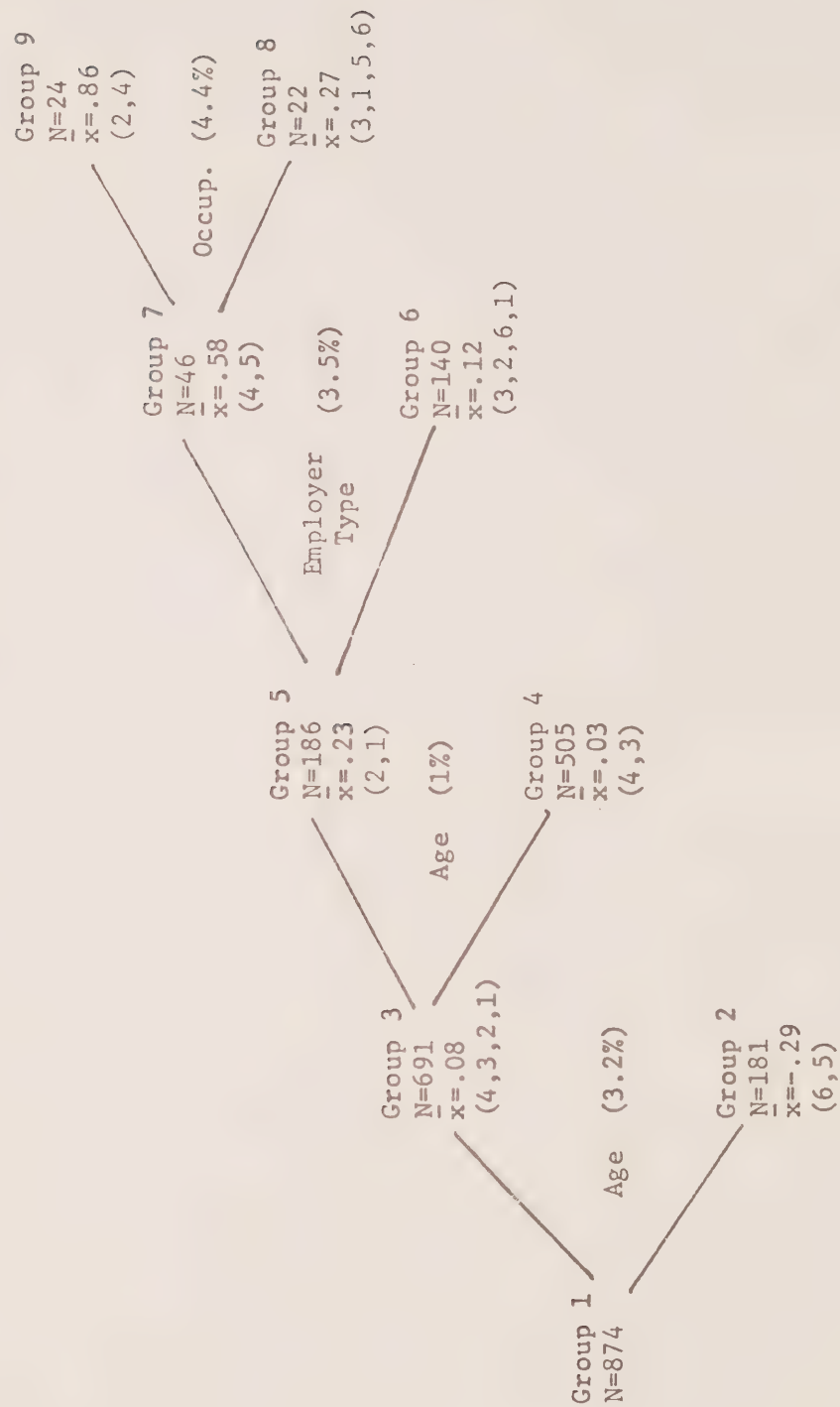
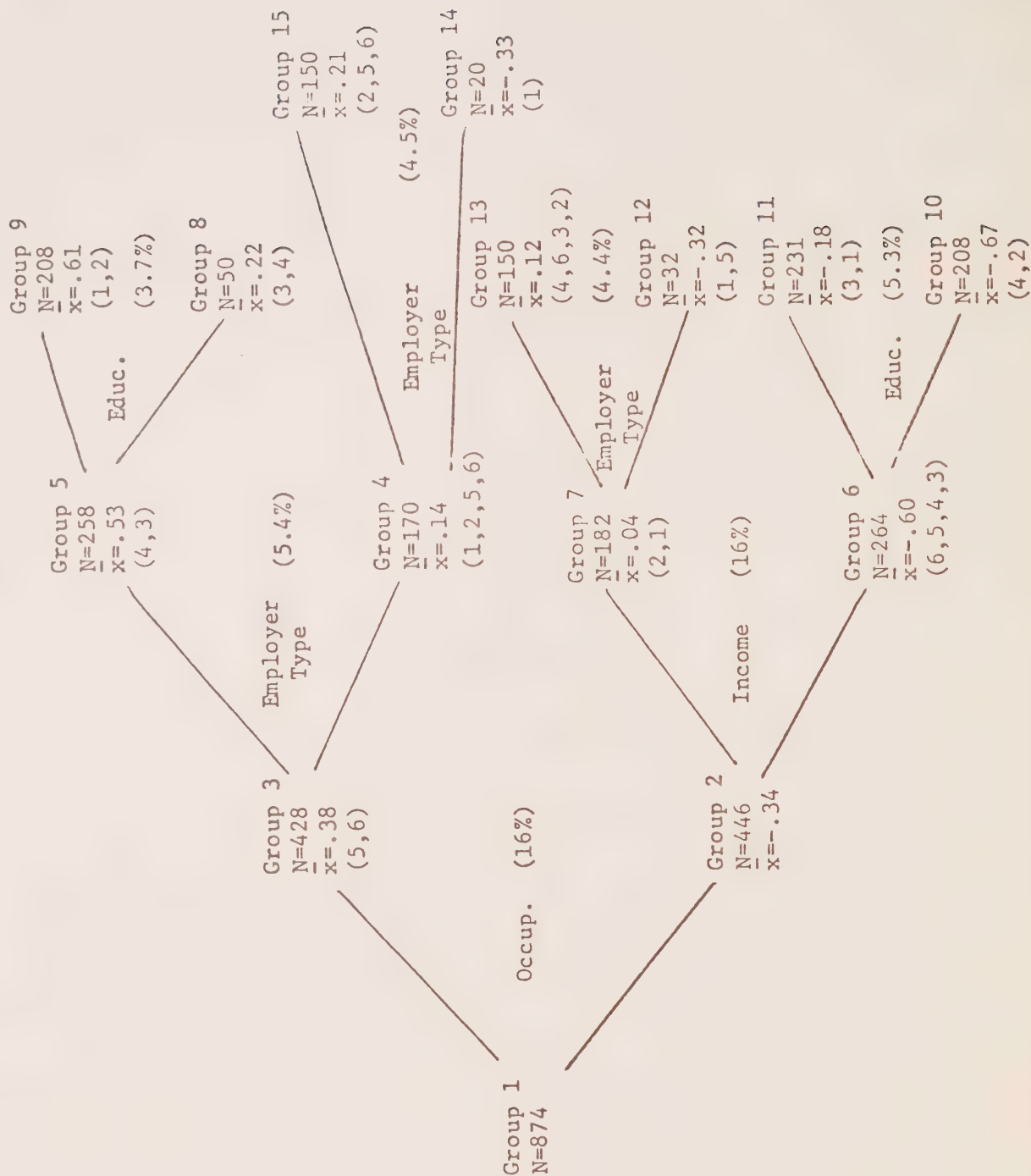


Figure 5

Individual Characteristics, Type of Employer and Voluntary Overtime:
A.I.D. Results for the Canadian Work Ethic Survey



Two other splits involved type of employer. In each case (Groups 12 and 14) the self-employed had lower alienation, and group means were approximately equal. However, the lowest alienation was found among those with white-collar occupations, high incomes (almost 60% of the white-collar workers) and those among this group that had finished high school or had gone to university. In this instance high status and status consistency were associated with low alienation. On the other hand, the most highly alienated group were those with blue-collar occupations who worked in government or big business but had not gone beyond high school in their education.

U.S. Comparisons

Organization size was most important in the analysis of the Intrinsic Alienation Index constructed for the U.S. sample (Figure 6).¹⁹ When high complexity jobs were located in small organizations (less than 100 employees, Group 6), lower alienation resulted (a mean of 1.49 compared to an overall mean of 1.83). Slightly lower alienation was recorded for those from this group who were not in the 21-29 age cohort (Group 14). Respondents with low complexity jobs who were 30 years of age or older (Group 4) were also split on organization size. Those working in very small organizations (1-9 employees) averaged considerably lower alienation (1.63) than did those who worked in larger organizations (\bar{x} =2.02).

The greatest alienation (\bar{x} =2.41) was observed for those who were young (under 30), had low complexity ("poor") jobs, and worked in organizations with between 50 and 499 employees or organizations with 1000 or more employees (Group 11). While the division was not directly along the size dimension, there was still some tendency for larger size to be associated with greater alienation when it was associated with youth and low job complexity.

Summary

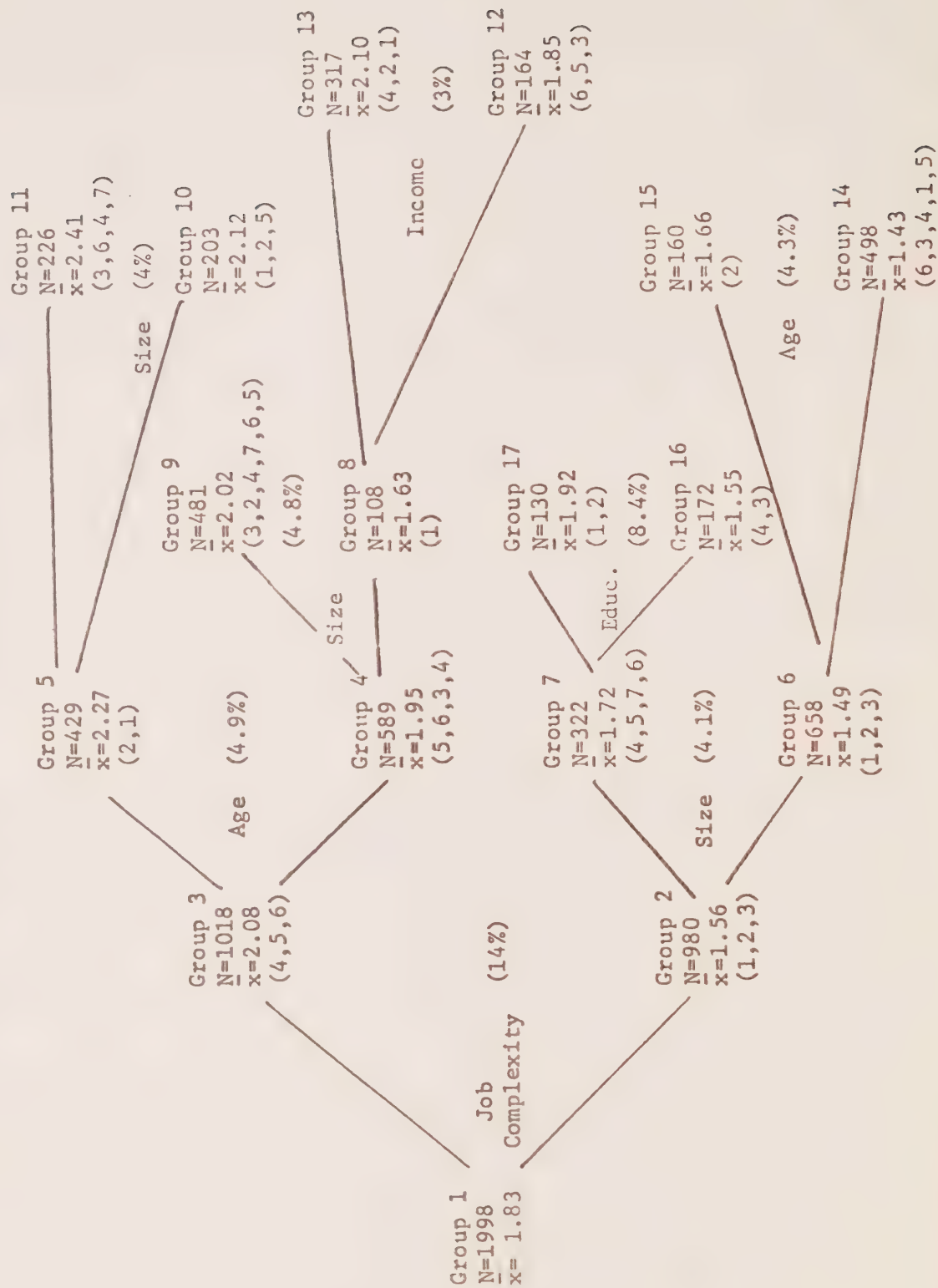
Results of exploratory analysis of interactive models were somewhat inconclusive, although in general, where organization size was important in combination with other variables, larger organizations were associated with greater alienation and smaller organizations were associated with lower alienation. In the Canadian Work Ethic Survey, type of employer was important in General Attitudinal Alienation (job dissatisfaction). Blue-collar workers with high education (inconsistent status) who also worked in large private corporations were the most highly alienated. However, the opposite was not the case. Older (35 or over) white-collar workers were the least alienated rather than white-collar workers with low educations in small organizations.

On the Avoidance Index, type of employer was not important. Older (25 or over) unskilled labourers earning very low incomes had the highest alienation scores. On the Means-ends Index, type of employer was important with those in white-collar occupations who had high education and worked in somewhat smaller organizations having the lowest alienation scores. The very young who worked in either professional or clerical jobs in the government were the most likely to report that they were frequently late and those least likely to work voluntary overtime were blue-collar workers with low educations who were employed in big business or government.

In the U.S. Quality of Employment Survey, Intrinsic Alienation was lowest for those with high complexity jobs who worked in smaller organizations. Young

Figure 6

Age, Education, Income, Job Complexity, Organization Size and Intrinsic Alienation:
A.I.D. Results for the U.S. Quality of Employment Survey



workers in relatively routine, repetitive jobs who worked in somewhat larger organizations had the highest alienation. In general, however, where organization size was important in defining one extreme or the other on a particular alienation scale, the proposition was not simply reversible.

Conclusions

While a relatively large minority of those surveyed in both the Canadian and U.S. studies reported feelings or behaviours that might be interpreted to indicate alienation, there was only a weak relationship between organization size and alienation. Those who were employed in large organizations showed some tendency to report greater alienation.

While the size of the immediate work group was relatively unrelated to alienation, other social characteristics and job characteristics appeared to covary more strongly with alienation. As had been observed in other samples, there was a tendency for the young, the less educated, those with lower incomes and those with poorer jobs to express greater alienation.

However, these relationships could not fully account for the observed association between employer type or organization size and alienation. Even when these characteristics were controlled, there remained some tendency for those employed in larger organizations to report greater alienation. Alienation also remained a negative function of respondents' age, income and job complexity. Moreover, these factors were usually better predictors of alienation than was organization size or employer type.

On the basis of this evidence we cannot accept the null hypothesis that organization size has no effects on employees' alienation. However, the demonstration of the linkages involved would demand more information than was available for this analysis, even though it does not appear that this linkage was simply a product of the distribution of younger, less educated workers with poorer jobs and lower incomes in larger organizations. The additive model used in most of the literature appeared to apply here as well. Youth, poor pay, low education, blue-collar low-complexity jobs and large organizations all tended to produce greater alienation. However, an exploratory search for possible interactive models pointed to a number of possible modifications.

It was not always the younger, less well-educated, low income blue-collar workers employed in large organizations who had the greatest alienation. Neither was it the older, well-educated, white-collar workers with high income employed in relatively small organizations who reported the lowest alienation. In the Canadian sample, older white-collar workers had the lowest alienation scores on the General Attitudes index, but it was blue-collar workers with higher educations employed in large private organizations who were the most alienated in terms of their conscious attitudes. On the Avoidance index the greatest alienation was expressed by those with low incomes, but those who were older and had relatively decent jobs were more alienated yet. On the Means-ends index it was the blue-collar workers with less education who had higher alienation, but of these, the most alienated included older workers and those who made very high incomes (along with the poor). When we turn to reported behaviour, it was the young who were late most often, but professional and clerical workers among them were late even more frequently. More consistent with the additive model was the observation that white-collar workers with high educations and high incomes reported the most voluntary overtime while

blue-collar workers with low educations employed in big business or government reported the least voluntary overtime. More appropriate and detailed data would help us decide the nature of the linkage between organizational size and alienation. Such information is necessary to the identification of the magnitude of such effects and the specific social conditions under which they vary.

The relative consistency with which the self-employed reported feeling and acting less alienated certainly suggests that the lack of control implied in working for somebody else may be a negative factor for some. In fact, alienation may be a product of organizational centralization, types of technology or any of a number of other organizational characteristics. In any event, the linkage between organization size and alienation probably is both complicated and relatively weak. The total magnitude of these effects in the working population is probably very small not only because of the weakness of this relationship, but also because most of the labour force does not work in large organizations.

NOTES

1. This hiatus is well illustrated in Vol. I (1975) of the Annual Review of Sociology. While research trends in the study of both organizations and alienation warrant review, neither one makes any reference to concerns expressed in the other. For a recent review of the literature concerning job satisfaction and a discussion of available empirical evidence for Canada see Williamson and Gartrell (1976).
2. Physiological scientists represent a fairly narrow occupational group. Their job characteristics represent only a small part of the variability in working conditions within the labour force as a whole. In fact, in such a sample, these conditions are effectively controlled (held constant). Robert Presthus (1965) presents some suggestions regarding alternative reaction patterns of different types of members of organizations.
3. Kahn et al (1964) reject the alternative which would attempt a reduction in the size of organizations in order to effect a reduction in stress. They judge such action to be economically unfeasible, an observation which Weber made some time ago with respect to the necessity of bureaucracy for the maintenance of social order (Gerth and Mills, 1946:229).

While stress itself may have deleterious effects on the well-being of workers, there is, of course, the necessity of assuming that alienation is a direct function of stress.

4. This kind of treatment of alienation is characteristic of the field, not just of Blau's enquiries. For example, while Marshall Meyer (1972:28-31) introduces the subject and briefly discusses both Marx's and Durkheim's approach to the impact of organizations on individuals, his research stops short of investigating the hypothesis that "large organizations are more bureaucratic, rigid, and centralized, and therefore more dehumanizing than small ones." (emphasis added)
5. Some organizations are composed largely of volunteer and/or part-time personnel, and such "outsiders" as customers or stockholders clearly may have an important impact on the organization. However, their primary interests usually lie outside the organization in question and their potential involvement in alienation lies outside the scope of the present study.
6. Hall (1972) reached this conclusion based on two empirical studies. Anderson and Warkov (1961) found correlations of .966 and .977 between average daily patient load and total labour force employed in general and T.B. hospitals respectively. Hawley et al (1965) found a correlation of .943 between student enrollment and the number of faculty in U.S. colleges and universities.
7. Pugh et al (1969) in a study of 46 organizations in the U.K. reported a correlation of .78 between number of employees and total assets. However, this did not take into account multiple plant operations and was limited

to batch and mass-production technologies. Were corporation assets used instead of organization assets and were industries with more highly automated (continuous process) technologies included, this correlation might be reduced substantially.

8. A more complete discussion of the adequacy of this sample is included in Bernstein et al (1975). In their analysis of the Work Ethic Survey they did not attempt to develop scales that would represent alienation. While the sample collected clearly should be weighted to give estimates for the Canadian labour force, the necessary information to perform such a weighting was not available.
9. Items (opinion statements asking for responses ranging from strongly agree to strongly disagree) were specified poorly (e.g. "I wouldn't want the same job for life" or "would you choose work or taking your son to a Saturday morning hockey game") in several instances. Some contained multiple stimuli (e.g. "There are plenty of jobs that are available, but I would rather collect Unemployment Insurance than work"), were vague and ambiguous (e.g. "there is an atmosphere of welfare for anybody who wants it in this country"), or involved questions of fact rather than opinion (e.g. the question above referring to the fact that there were plenty of jobs available or the question: "the best paying jobs are those that require a lot of education"). It was often difficult to determine exactly the nature of the stimulus to which subjects responded. Such items were not included in the analysis.
10. While the factor analysis of both the U.S. and Canadian data was relatively successful in achieving simple structure, results were treated only as a guide to index construction. In several cases factors were combined where the meaning of the items seemed similar. This was done in order to achieve greater parsimony and higher reliability. The collapsing of several factors into one scale was based on further factor analysis restricting the number of factors. For example, when the analysis of the Canadian Work Ethic Survey was restricted to four factors, Factor I contained items 148 and 141 (loaded .54 and .47 respectively) along with the general job satisfaction items. The Avoidance, Means-ends and Overtime factors made up the other three dimensions (Eigenvalues of 1.57, .91 and .68 respectively) and the Lateness items were omitted completely. Oblique rotation yielded the same factors and very similar loadings both when the number of factors was restricted and when it was not.
11. This percentage appears to have been remarkably constant across time (Kahn, 1972). Such consistency in the face of a changing occupational structure, variability in economic conditions (particularly unemployment) and increasing educational levels suggests that these kinds of questions tap very general values rather than reactions to the job per se.
12. Actual work groups were generally small. 47% of the subjects worked in groups of 4 or less, while 92.3% of the workers worked in groups of 20 or less. One might hypothesize that there would be a curvilinear relationship between number of co-workers and alienation, since having no co-workers (the lowest category here) could be viewed as a situation of "isolation". While respondents with no co-workers recorded the highest alienation in terms of Reported Behaviour and Extrinsic Alienation, their

average scores on the other two indices indicated relatively low alienation. Differences were small in any case and no simple curvilinear (quadratic) relationships were apparent.

13. In fact, 26% of the self-employed reported earnings of \$16,000 or more, and 5.6% of those employed in small business, 8.4% of those in large private corporations and 5.7% of those employed in government reported similar earnings. However, the self-employed also exhibited the greatest variance in income and they may have to deal with a good deal of "externally generated uncertainty."
14. Indeed, the same pattern appeared for education differences, although the difference between the means was somewhat smaller ($\beta^2 = .020$). Those who had received only a primary education had an adjusted mean "infrequency" of overtime score of .198, while those with the highest educations averaged -.193.
15. Adjusted means for Behavioural Intentions ranged from 1.65 for the lowest income level (less than \$4,500) to 1.45 for the highest income level (\$15,500 - \$75,000). Similarly, for Extrinsic Alienation adjusted means for these same income levels were 1.89 and 1.68, respectively. The range of means for Intrinsic Alienation was 2.02 to 1.65.
16. For example, labourers had an adjusted mean of .291 on Reported Behaviour, while managers, officials and proprietors had an adjusted mean of -.373. Professional, technical and kindred workers had an adjusted mean of 1.60 on Intrinsic Alienation, while labourers had a mean of 2.16 and clerical workers had a mean of 1.98.
17. The relationship between organization size and alienation was altered only slightly by the substitution of job complexity for occupational differences. For example, adjusted means on the Intrinsic Alienation index ranged from 1.60 for people working in organizations with 1-9 employees, to 2.11 for those in the largest organizations (2,000 or more employees).
18. For the U.S. data the minimum number of cases per group was set at 50. For the Canadian data the limit was set at 20. For both data sets the minimum split eligibility criterion was set at .001 (there had to be a difference of at least .1% as evaluated against the total sums of squares). For both analyses the split reducibility criterion was set at .006. The split had to reduce the residual sums of squares by at least .6%. These limits were purposively set to maximize the number of splits in order to fully explore possible interactions.
19. Organization size was not included in the analysis of Behavioural Intentions. There the highest alienation (2.03) was registered for those 86 respondents who were young (under 30, $N=456$), employed in low complexity jobs ($N=157$) and who had relatively low incomes (below \$9,000). Little variance was explained for Extrinsic Alienation, while the lowest alienation (-.34) on the Reported Behaviour Index was registered for workers with jobs of very high complexity ($N=409$).

Size entered at two points in differentiating groups with intermediate levels of alienation. Workers with relatively non-complex jobs employed

in middle-sized organizations (100-499 employees) had greater alienation (.19) than did employees in very small (1-9) or very large (500 or over) organizations ($\bar{x} = -.14$). The group with the second highest alienation (very low complexity jobs and 21-44 or 64 years of age or older) was divided into those employed in large (1000-1999) and fairly small (10-99) organizations versus all others. Size bore no simple straightforward relationship to these dimensions of alienation.

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APPENDIX A

Work Ethic Study Codebook

Variable

<u>Number</u>	<u>Item Description: General Attitudinal Alienation</u>
47	In general, would you say your job is... 1. Very enjoyable; 2. Somewhat enjoyable; 3. So-so; 4. Not enjoyable; 5. Drudgery.
159	I love the job I have and the place I work in. Agree strongly to disagree strongly (4 categories).
34	Do you personally feel strong/moderate/little commitment to your job?
148	At the end of the day, when I have worked hard, I have a sense of accomplishment (A.S. to D.S.).
141	I feel very good when I've completed a good day's work. (A.S. to D.S.)

Avoidance

95	I don't mind being unemployed for a while (A.S. to D.S.).
72	Would you rather work full-time, part-time, never.
106	I'd rather collect Unemployment Insurance than work at something I don't like. (A.S. to D.S.)
145	Being unemployed would drive me mad. (A.S. to D.S.)

Means-Ends

142	Earning a good living is the most important thing to me. (A.S. to D.S.)
71	If you were going to take a job in another company which of the following would be most important in your consideration. (Higher pay, security, better opportunity for advancement, better benefits V.S. more interesting work, more control, better chance to use talents, increase accomplishment).
119	If I could earn \$7 an hour, I would take any job. (A.S. to D.S.)
128	To me, work is a way to make money, and I don't expect to get any special satisfaction from doing it. (A.S. to D.S.)
129	I work to keep up my payments/pay my debts. (A.S. to D.S.)

Overtime

- 175 Do you ever come to work on your own to catch up because there is so much to do? Yes/No.
- 157 I often work overtime to get my work done without any extra pay or salary. (A.S. to D.S.)

Lateness

- 33 In the last two weeks, how many days have you been late?
0,1,2-3,4-5,6-7,8-10, more than 10.
- 176 Are you the kind of person who arrives ... early every day,
right on time, a few minutes late every day.

-
- 2 Age: 1. 16-19; 2. 20-24; 3. 25-34; 4. 35-44;
5. 45-54; 6. 55 and over.
- 198 Education: up to completed public school; some secondary
to finished high school; non-university post-secondary;
university.
- Perinc Income: under \$5,000; \$5,000-\$8,000; \$8,000-\$12,000;
\$12,000-\$16,000; \$16,000-\$20,000; \$20,000 or over.
- 201 Occupation: 1. Executives, manager, owner; 2. Professional;
3. Agency salesman, sales; 4. Clerical/office work;
5. Skilled labour, service; 6. Unskilled labour.

U.S. Quality of Employment Codebook

Variable Number

Item Description: Intrinsic Alienation

- 624 I have an opportunity to develop my own special abilities.
(Strongly agree, Agree, Disagree, Strongly disagree).
- 628 The work is interesting.
- 631 I am given a lot of freedom to decide how I do my own work.
- 632 I am given a chance to do the things I do best.
- 634 The problems I am expected to solve are hard enough.
- 640 I can see the results of my work.

Reported Behaviour

- 120 How often do you do some extra work for your job which
isn't required of you? often/sometimes/rarely/never.

121 In the last year have you made any suggestions to your supervisor on how work methods or procedures could be improved on your job? (yes/no)

Extrinsic Alienation

622 The chances for promotion are good.

623 The people I work with are friendly and helpful.

626 I receive enough help and equipment to get the job done.

629 I have enough information to get the job done.

630 The pay is good.

633 The job security is good.

635 My supervisor is competent in doing his/her job.

636 My responsibilities are clearly defined.

637 I have enough authority to do my job.

638 My fringe benefits are good.

643 My supervisor is very concerned about the welfare of those under him/her.

646 My supervisor is successful in getting people to work together.

647 Promotions are handled fairly.

648 The people I work with take a personal interest in me.

649 My employer is concerned about giving everyone a chance to get ahead.

650 My supervisor is friendly.

651 My supervisor is helpful to me in getting my job done.

652 The people I work with are helpful to me in getting my job done.

653 The people I work with are competent in doing their jobs.

654 The people I work with are friendly.

Behavioural Intensions

656 If a good friend of yours told you he/she was interested in a job like yours for your employer, what would you tell

him/her? Would you strongly recommend this job, would you have doubts about recommending it, or would you strongly advise him/her against this sort of job?

657 Knowing what you know now, if you had to decide all over again whether to take the job you have now, what would you decide? Would you decide without any hesitation to take the same job, would you have second thoughts, or would you decide definitely not to take the same job?

84 What type of occupation do you expect to be in five years from now? (same/retire/other specified/other unspecified)

31 If you were free to go into any type of job you wanted, what would your choice be? (same/retire/other).

658 Taking everything into consideration, how likely is it that you will make a genuine effort to find a new job with another employer within the next year -- very likely, somewhat likely, or not likely at all?

.....

702 Age: 1. 16-20; 2. 21-29; 3. 30-44; 4. 45-55; 5. 56-64; 6. 65 or over.

443 Income: 1. below \$4,500; 2. \$4,500-\$6,650; 3. \$6,650-\$9,000; 4. \$9,001-\$12,000; 4. \$12,001-\$15,400; 6. \$15,500-\$75,000.

703 Education: 1. up to completed high school; 2. public school to completed high school; 3. some college or college degree; 4. graduate or professional education.

762 Occupation: 1. managers, executives and proprietors; 2. professional, technical and kindred; 3. sales; 4. clerical and kindred; 5. service, craftsmen, foremen and kindred; 6. operatives and unskilled.

APPENDIX B

Table 1
 DIMENSIONS OF ALIENATION: FACTOR ANALYSIS
 OF THE CANADIAN WORK ETHIC SURVEY (1974)

		Factors					
		I	II	III	IV	V	VI
47.	Enjoy Work	.72	.03	.13	.09	.13	.02
159.	Love Job	.68	.05	.06	.25	-.01	.01
34.	Hrs. Worked	.42	.17	.20	.14	.11	.16
95.	Unempl. O.K.	.11	.64	-.00	.03	-.09	.09
72.	Part-time	.00	.49	.02	.01	-.09	.01
106.	Collect U.I.	.04	.34	.10	.00	.10	.03
145.	Mad	.00	.46	.09	.12	-.14	.02
175.	Come in	.12	.08	.70	.03	.14	-.05
157.	Overtime	.15	.10	.68	.03	.17	-.04
148.	Accomplish	.22	.07	.04	.63	.00	.03
141.	Feel Good	.13	.10	.02	.67	.06	.04
142.	Good Living	-.03	-.28	.12	-.21	.48	-.04
71.	Extrinsic	-.09	-.08	.08	.01	.43	-.10
119.	\$7	-.05	.03	.09	.05	.50	.02
128.	Only Money	.19	.05	.11	.21	.46	.01
129.	Payments	.20	-.10	-.00	-.02	.39	-.02
33.	Freq. Late.	.07	.01	-.03	-.08	-.05	.67
176.	Lateness	.02	.10	-.03	.08	-.04	.61

<u>Factor</u>	<u>Eigenvalue</u>	<u>% of Variance</u>
I	2.73	37.2
II	1.62	22.1
III	.97	13.3
IV	.79	10.8
V	.72	9.8
VI	.50	6.8

Table 2
INDIVIDUAL CHARACTERISTICS AND ALIENATION:
ZERO-ORDER CORRELATIONS FOR THE
CANADIAN WORK ETHIC SURVEY

Variable	1	2	3	4	5	6	7
1. General Attitudinal Alienation	--						
2. Avoidance	.179	--					
3. Means-ends	.132	-.144	--				
4. Lateness	.110	.095	-.071	--			
5. Voluntary Overtime	.251	.120	.246	-.058	--		
6. Education	-.033	.015	-.388	.058	-.287	--	
7. Income	-.130	-.365	-.041	-.065	-.267	.169	--
8. Age	-.182	-.090	.115	-.169	-.031	-.154	.263

Table 3

DIMENSIONS OF ALIENATION: FACTOR ANALYSIS
OF THE U.S. QUALITY OF EMPLOYMENT SURVEY (1972-3)
Factors

Item	I	II	III	IV	V	VI	VII	VIII
623 people help	.63	.08	.19	.08	.24	.07	.13	.07
648 people interested	.55	.22	.29	.07	.15	.10	.14	.14
652 cowk help	.64	.13	.31	.10	.13	.04	.02	.04
653 cowk competent	.64	.06	.18	.08	.21	.07	.05	.04
654 people friendly	.76	.11	.17	.07	.12	.03	.06	.07
624 dev. abilities	.16	.61	.11	.00	.29	.20	.21	.17
628 wk. interesting	.19	.52	.16	.07	.20	.28	.09	.28
631 freedom	.08	.55	.11	.08	.37	.07	.08	.11
632 things do best	.14	.62	.12	.12	.34	.23	.13	.12
634 problems hard	.12	.48	.07	.08	.13	.23	.18	-.01
121 suggestions	.00	.42	.02	.12	-.17	.00	-.01	-.05
120 extra work	.03	.40	.00	.07	-.13	.01	.03	-.01
635 sup. competent	.15	.06	.65	.01	.18	.07	.12	.04
643 sup. concerned	.17	.13	.76	.09	.17	.06	.11	.07
646 sup. coop.	.27	.02	.67	.08	.21	.06	.12	.04
650 sup. friendly	.18	.11	.70	.01	.17	-.02	.12	.10
651 sup. help	.23	.07	.73	.03	.18	.05	.11	.08
630 pay good	.08	.16	.03	.56	.17	.08	.12	.20
633 security	.16	.16	.10	.58	.11	.08	.11	.09
638 friends	.03	.09	.02	.66	.03	.10	.22	.00
626 enough help	.18	-.04	.19	.16	.46	.05	.11	.13
629 enough info.	.20	.05	.21	.13	.52	.05	.00	.05
636 resp. defined	.20	-.07	.23	.07	.52	.04	.06	.02
637 enough auth.	.15	.15	.21	.07	.54	.09	.09	.08
640 see results	.19	.32	.18	-.01	.40	.14	.04	.08
31 job if free	.08	.14	.01	-.02	.07	.47	.07	.21
84 same 5 yr.	.04	.17	.03	.11	.05	.65	.00	.00
658 find another	.04	.11	.11	.28	.11	.49	.02	.23
622 promo. good	.04	.18	.12	.20	.03	.00	.56	.11
647 promo. fair	.16	.10	.25	.24	.12	.08	.69	.07
649 chance promo.	.18	.18	.41	.17	.15	.06	.57	.11
656 rec. to friend	.10	.05	.11	.12	.10	.09	.08	.65
657 take job again	.09	.05	.09	.11	.08	.22	.10	.67

<u>Factor</u>	<u>Eigenvalue</u>	<u>% of Variance</u>
I	8.87	53.7
II	2.28	13.8
III	1.29	7.8
IV	1.12	6.8
V	1.09	6.6
VI	.79	4.8
VII	.61	3.7
VIII	.48	2.9

Table 4

INDIVIDUAL CHARACTERISTICS, ORGANIZATION SIZE AND ALIENATION:

ZERO-ORDER CORRELATIONS FOR THE U.S. QUALITY OF EMPLOYMENT SURVEY

Variable	1	2	3	4	5	6	7	8	9	10
1. Behavioural Intentions	--									
2. Reported Behaviour	.085	--								
3. Extrinsic Alienation	.393	.084	--							
4. Intrinsic Alienation	.469	.277	.575	--						
5. Age	-.257	-.028	-.091	-.212	--					
6. Income	-.225	-.238	-.154	-.286	.193	--				
7. Education	-.027	-.234	.057	-.133	-.143	.266	--			
8. Number of Co-workers	.000	-.063	-.033	.016	-.026	.150	.083	--		
9. Org. Size	.072	.036	.045	.233	-.071	.140	.026	.329	--	
10. Tenure	-.266	-.166	-.092	-.182	.558	.348	-.082	.095	.137	--
11. Job Complexity	-.228	-.334	-.122	-.402	.146	.460	.341	.046	-.131	.186

